REMARKS

Claims 1-8 and 10-22 are pending in this application. In the Office Action, claims 3, 4 and 10-22 were withdrawn from consideration as being directed to a non-elected invention. Applicants reserve the right to file divisional applications directed to these claims.

By this amendment, claim 1 is amended. Amended claim 1 is for clarification purposes only, and not related to reasons for patentability. No new matter is added. Reconsideration and allowance of the application are respectfully requested.

Objection to the Drawings

The Office Action objected to the drawings under 37 C.F.R. § 1.83(a) for failing to show the feature of "a first sub-layer formed on the first metal wiring and a second sub-layer formed on the capacitor, the first metal wiring and the first sub-layer, the second sub-layer including a lower layer that is formed between the upper electrode and the first metal wiring, and an upper layer that is formed over the upper electrode", as recited in claim 1. Applicants respectfully traverse this objection.

Specifically, Fig. 2 clearly depicts a first insulating layer 112 and a second insulating layer 120 formed on the first insulating layer 112, The second insulating layer 120 may include a first sub-layer 120 surrounding the first metal wiring 122 and a second sub-layer 124 formed on the capacitor 132, the first metal wiring 122 and the first sub-layer 120. Moreover, the second sub-layer 124 may include a lower layer 124a and an upper layer 124b. The lower layer 124a may be formed between the upper electrode 130 and the first metal wiring 122, and the upper layer 124b may be formed over the upper electrode 130. Thus, the drawings, particularly Fig. 2,

clearly depict the features recited in claim 1. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims Rejection - 35 U.S.C. § 112

Claims 1-2 and 5-8 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. This rejection is respectfully traversed.

With regard to the features of the "insulating interlayer", Applicants have amended claim 1 to replace "insulating interlayer" with "second insulating layer". Such an amendment illustrates that the "second insulating layer" may include layer 120 and/or layer 124. Accordingly, by this amendment, claim 1 is now found to be definite.

With regard to the feature of the "first metal wiring", Applicants submit that the *thickness* of the metal wire 122 commences at the lower surface of first layer 120 up to the lower layer 124a of the second layer 124. Support for this feature can be found, for example, in paragraphs [0021], [0044] and [0049].

Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Claims Rejection - 35 U.S.C. § 103

Claims 1, 2 and 5-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Okumura et al. (hereinafter "Okumura"), U.S. Patent 6,163,846 in view of Suwanai et al. (hereinafter "Suwanai), U.S. Patent 5,389,558. This rejection is respectfully traversed.

Applicants submit that Okumura and Suwanai, individually or in combination, fail to disclose or suggest a semiconductor device comprising, at least;

> the second insulating layer includes a first sub-layer surrounding the first metal wiring and a second sub-layer formed on the capacitor, the first metal wiring and the first sub-layer, the second sub-layer including a lower layer that is formed between the upper electrode and the first metal wiring, and an upper layer that is formed over the upper electrode.

as recited in claim 1.

The Examiner admits, on page 5 in the Office Action, that "Okumura et al. do not teach an insulating interlayer includes a first sub-layer formed on the first metal wiring and a second sub-layer formed on the capacitor, the first metal wiring and the first sub-layer including a lower layer that is formed between the upper electrode and the first metal wiring, and an upper layer that is formed over the upper electrode". Yet, the Examiner attempts to overcome the noted deficiency of Okumura by arguing that Suwanai teaches the above features.

However, Suwanai is a completely different structure than the claimed invention. Specifically, the Examiner allegedly asserts that insulating interlayer 51 of Suwanai teaches the claimed invention (e.g., second insulating layer). Although interlayer insulating film 51 is a multi-composite film formed by laminating a silicon oxide film (a deposited insulating film) 51A, a silicon oxide film (an applied insulating film) 51B and a silicon oxide film (a deposited insulating film) 51C successfully in this order (see col. 11, lines 57-61), it is respectfully submitted that none of the composite films of interlayer insulating film 51 surrounds a metal wiring or is formed on the capacitor, the first metal wiring and the first sub-layer. In other words, the lower silicon oxide film 51A in Suwanai is formed on wiring line data 50 and insulating layer 40 (Fig. 1). Accordingly, Suwanai fails to disclose that the second insulating layer includes a first sub-layer surrounding the first metal wiring and a second sub-layer formed on the capacitor, the first metal wiring and the first sub-layer, the second sub-layer including a

lower layer that is formed between the upper electrode and the first metal wiring, and an upper layer that is formed over the upper electrode, as recited in claim 1.

Even assuming *arguendo* that the Examiner's position is correct, which Applicants do not admit, the Examiner has failed to provide any evidence of motivation why the interlayer insulating film of Suwanai should be used in the semiconductor device of Okumura, or more specifically, evidence as to why one or ordinary skill in the art would be motivated to incorporate the interlayer insulating film of Suwanai into the semiconductor device of Okumura when the information storing capacitor C of Suwanai is positioned near P⁻semiconductor substrate 20 (col. 10, lines 36-37). Accordingly, Applicants submit that the Examiner has failed to provide a proper *prima facie* case of obviousness under 35 U.S.C. §103.

Further, the Examiner is using *impermissible hindsight* reconstruction to reject the features recited in claim 1. The Examiner's assertion that "[i]t would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an insulating interlayer which includes a first sub-layer formed on the first metal wiring and a second sub-layer formed on the capacitor, the first metal wiring and the first sub-layer, the second sub-layer including a lower layer that is formed between the upper electrode and the first metal wiring, and an upper layer that is formed over the upper electrode in Okumura et al.'s device in order to improve the protection to the device", is not evidence for obviousness. Applicants disagree with the Examiner's reasoning, and submit that the mere possibility that one element and one reference could be used in another is not sufficient evidence of a suggestion or motivation to combine the two references. Applicants submit that the Examiner has used the present application as a blueprint, and selected a prior art semiconductor device of Okumura as the main structural device and then searched other prior art for the missing features (e.g., second

insulating layer) without identifying or discussing any specific evidence of motivation to combine, other than providing conclusionary statement regarding the knowledge of the art, motivation and obviousness. The Federal Circuit has noted that the PTO and the courts "cannot use hindsight reasoning or hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention", *In re Fine*, 5 USPQ2d 1780 (Fed. Cir. 1988), and that the best defense against hindsight based obviousness analysis is the rigorous application of the requirement for a showing of a teaching or motivation to combine the prior art references. Thus, Applicants submit that the Examiner has failed to provide any evidence of motivation for combining the teachings of Okumura and Suwanai. Accordingly, the Examiner has not adequately supported the selection and combination of Okumura and Suwanai to render claim obvious.

For at least these reasons, claim 1 and those claims dependent thereon are allowable over the prior art. Withdrawal of this rejection is respectfully traversed.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and allowance of each of claims 1-8 and 10-22 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John A. Castellano, Reg. No. 35,094 at the telephone number of the undersigned below.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By _____

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